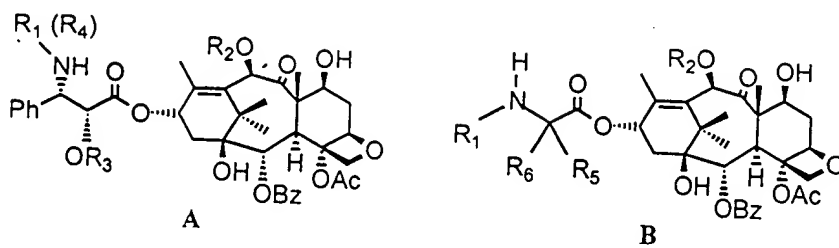


CLAIMS

We claim:

1. Anti-neoplastic and/or anti-leukemic effective compound selected from the formulae A and B:



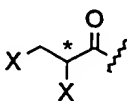
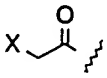
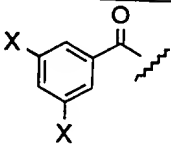
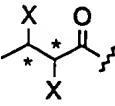
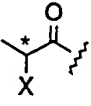
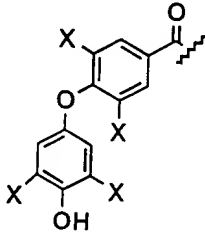
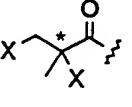
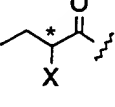
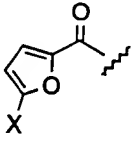
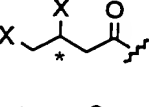
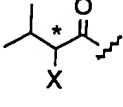
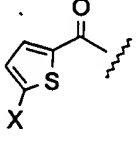
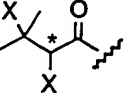
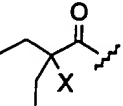
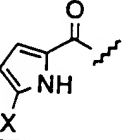
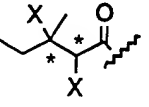
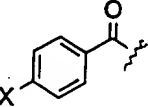
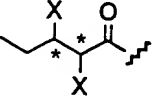
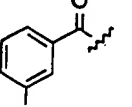
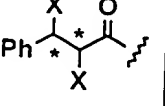
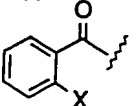
wherein

for general formula A: wherein R_1 is mono or dihalogenated acyl group, aroyl group (Table 1), alkyloxy-carbonyl group or aryloxy-carbonyl group (Table 2) and R_3 is hydrogen or halogenated group, and R_2 is hydrogen or acetyl groups; wherein R_4 is PhCO or MeCOCO or $\text{CH}_3\text{CH}=\text{C}(\text{CH}_3)\text{CH}=\text{CHCO}$, R_3 is a halogenated group (Tables 1 and 2);

for general formula B: wherein R_1 is mono or dihalogenated acyl group or aroyl group (Table 1), alkyloxy-carbonyl group or aryloxy-carbonyl group (Table 2) and R_2 is hydrogen or acetyl group, and R_5 is any group from Table 3; R_6 is H or Me;

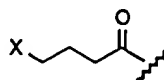
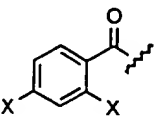
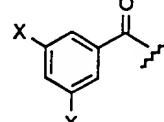
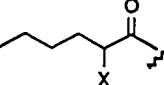
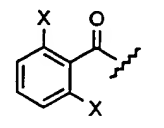
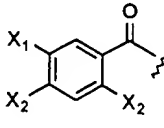
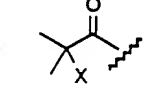
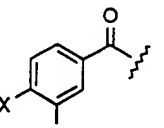
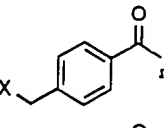
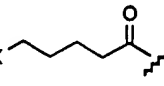
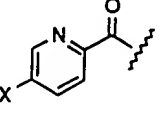
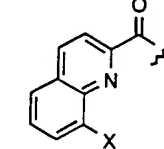
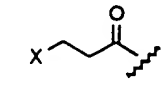
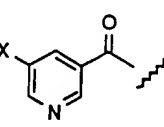
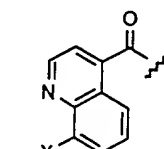
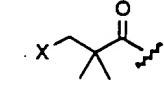
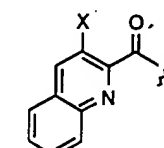
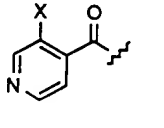
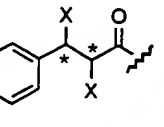
and wherein groups of Tables 1, 2 and 3 are selected from

Table 1 Structures of Halogenated Acyl and Aroyl Groups

Group 1		Group 9		Group 17	
Group 2		Group 10		Group 18	
Group 3		Group 11		Group 19	
Group 4		Group 12		Group 20	
Group 5		Group 13		Group 21	
Group 6		Group 14			
Group 7		Group 15			
Group 8		Group 16			

X: halogen (Cl or Br or I or F)

Table 1 (Contd)

Group 22		Group 29		Group 35	
Group 23		Group 30		Group 36	
Group 24		Group 31		Group 37	
Group 25		Group 32		Group 38	
Group 26		Group 33		Group 39	
Group 27		Group 34		Group 40	
Group 28					

X: halogen (Cl or Br or I or F)

X₁: one type of halogen

X₂: other type of halogen

Table 2 Structures of Halogenated Alkyloxy- and Aryloxy- Carbonyl Groups

Group 41		Group 48		Group 55	
Group 42		Group 49		Group 56	
Group 43		Group 50		Group 57	
Group 44		Group 51		Group 58	
Group 45		Group 52		Group 59	
Group 46		Group 53		Group 60	
Group 47		Group 54		Group 61	

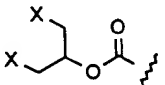
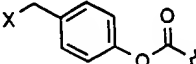
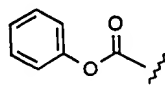
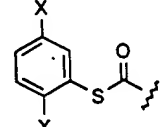
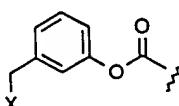
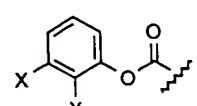
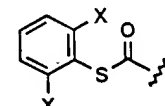
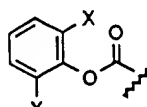
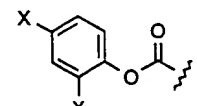
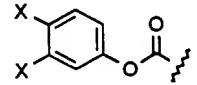
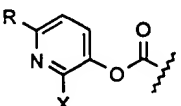
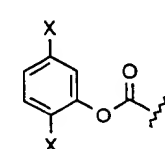
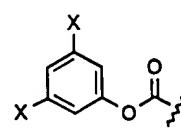
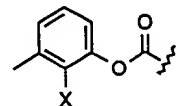
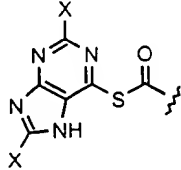
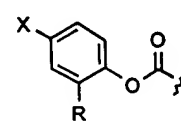
X: halogen (Cl or Br or I or F)
X₁: one type of halogen
X₂: other type of halogen

Table 2 (Contd)

<p>Group 62</p>	<p>Group 68</p>	<p>Group 74</p>
<p>Group 63</p>	<p>Group 69</p>	<p>Group 75</p>
<p>Group 64</p>	<p>Group 70</p>	<p>Group 76</p>
<p>Group 65</p>	<p>Group 71</p>	<p>Group 77</p>
<p>Group 66</p>	<p>Group 72</p>	<p>Group 78</p>
<p>Group 67</p>	<p>Group 73</p>	<p>Group 79</p>


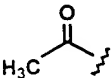

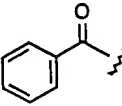
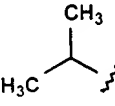
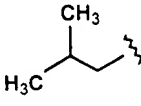
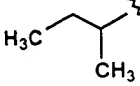

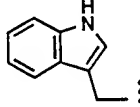
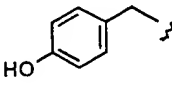
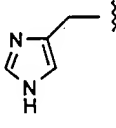
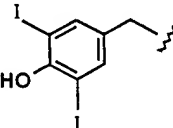
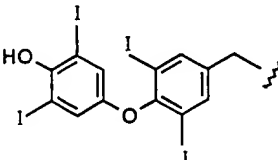

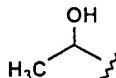
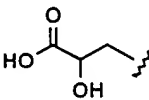
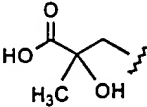
X: halogen (Cl or Br or I or F)
X₁: one type of halogen
X₂: other type of halogen

Table 2 (Contd)

Group 80		Group 86		Group 91	
Group 81		Group 87		Group 92	
Group 82		Group 88		Group 93	
Group 83		Group 89		Group 94	
Group 84		Group 90		Group 95	
Group 85					

X: halogen (Cl or Br or I or F)

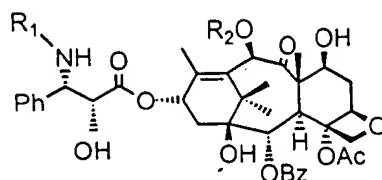
Table 3. Group Structures of Amino Acids and Their Codes Used in This Patent

					
Me	Ac	Ph	Bz	G ₁	G ₂
					
G ₃	G ₄	G ₅	G ₆	G ₇	
					
G ₈	G ₉	G ₁₀	G ₁₁		
					
G ₁₂	G ₁₃				

FOUO-1703660

2. A compound of claim 1 of the formula:

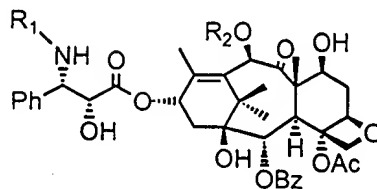
TYPE I



wherein R_1 is a group selected from Table 1 (groups 1 to 40);
and R_2 is H or Ac.

3. A compound of claim 1 of the formula:

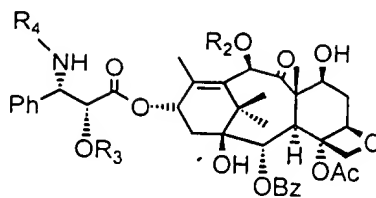
TYPE II



wherein R_1 is a group selected from Table 2 (groups 41 to 95);
 R_2 is H or Ac.

4. A compound of claim 1 of the formula:

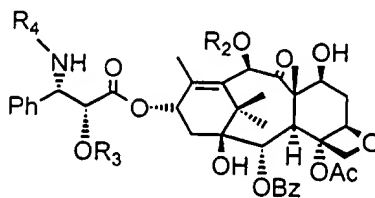
TYPE III



wherein R_3 is a group selected from Table 1 (groups 1 to 40);
and R_2 is H or Ac, and R_4 is PhCO or Me_3COCO or $\text{CH}_3\text{CH}=\text{C}(\text{CH}_3)\text{CO}$.

5. A compound of claim 1 of the formula:

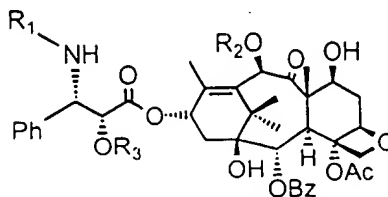
TYPE IV



wherein R_3 is a group selected from Table 2, (groups 41 to 95),
 R_2 is Ac or H, and R_4 is PhCO or Me_3COCO or $\text{CH}_3\text{CH}=\text{C}(\text{CH}_3)\text{CO}$.

6. A compound of claim 1 of the formula:

TYPE V



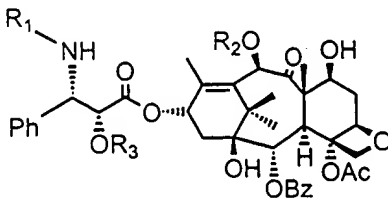
wherein R₁ is a group selected from Table 1 (groups 1 to 40);

R₂ is H or Ac;

R₃ is a group selected from Table 2 (groups 41 to 95);

7. A compound of claim 1 of the formula:

TYPE VI



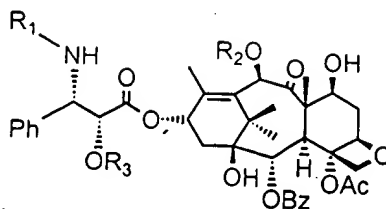
wherein R₁ is a group selected from Table 2 (groups 41 to 95);

R₂ is H or Ac;

R₃ is a group selected from Table 1 (groups 1 to 40);

8. A compound of claim 1 of the formula:

TYPE VII



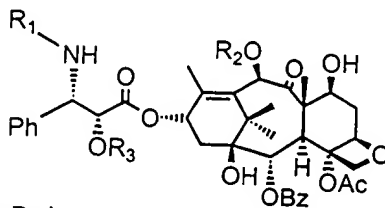
wherein R_1 is a group selected from Table 1 (groups 1 to 40);

R_2 is H or Ac;

R_3 is a group selected from Table 1 (groups 1 to 40);

9. A compound of claim 1 of the formula:

TYPE VIII



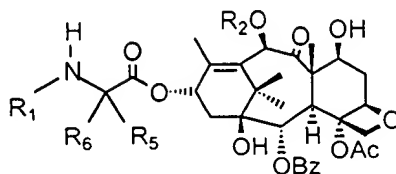
wherein R_1 is a group from Table 2 (groups 41 to 95);

R_2 is H or Ac;

R_3 is a group selected from Table 2 (groups 41 to 95);

10. A compound of claim 1 of the formula:

TYPE IX



wherein R₁ is a group selected from Table 1 (groups 1 to 40);

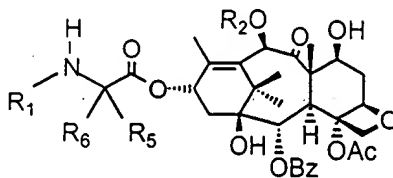
R₂ is H or Ac;

R₅ is H or Me or G₁ or G₂ or G₃ or G₄ or G₅ or G₆ or G₇ or G₈ or G₉ or G₁₁ or G₁₂ or G₁₃;

R₆ is H, only in the case when R₅ is G₁₀ the group R₆ is H or Me;

11. A compound of claim 1 of the formula:

TYPE X



wherein R₁ is a group selected from Table 2 (groups 55 to 95);

R₂ is H or Ac;

R₅ is H or Me or G₁ or G₂ or G₃ or G₄ or G₅ or G₆ or G₇ or G₈ or G₉ or G₁₁ or G₁₂ or G₁₃;

R₆ is H, only in the case when R₅ is G₁₀ the group R₆ is H or Me;

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12. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 1 or a pharmaceutically acceptable salt thereof.

13. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 2 or a pharmaceutically acceptable salt thereof.

14. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 3 or a pharmaceutically acceptable salt thereof.

15. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 4 or a pharmaceutically acceptable salt thereof.

16. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 5 or a pharmaceutically acceptable salt thereof.

17. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 6 or a pharmaceutically acceptable salt thereof.

18. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 7 or a pharmaceutically acceptable salt thereof.

19. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 8 or a pharmaceutically acceptable salt thereof.

20. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 9 or a pharmaceutically acceptable salt thereof.

21. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 10 or a pharmaceutically acceptable salt thereof.

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22. A pharmaceutical formulation which comprises as an active ingredient a compound of claim 11 or a pharmaceutically acceptable salt thereof.

23. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 1.

24. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 2.

25. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 3.

26. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 4.

27. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 5.

28. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 6.

29. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 7.

30. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 8.

31. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 9.

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32. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 10.

33. A method for treating humans in need thereof comprising administering to said humans an anti-cancer or anti-leukemic effective amount of the compound of claim 11.

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